

# Jaya Gupta

🎓 Nanotechnology Engineering  
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## SUMMARY

- Research experience working with semiconductors, cell cultures, and gene therapy
- Experience with Python, MATLAB, HTML, CSS, UX design tools, MS Office; currently learning JavaScript
- Proven ability to learn quickly and work in teams through past research work, hackathons, and organizing the BioTEC conference

## EXPERIENCE

### Research Assistant, University of Waterloo, Canada

Jan 2019 - Apr 2019

- Conducted experiments to develop a non-viral gene delivery system with DNA-nanoparticle complexes
- Analyzed samples using flow cytometry and microscopy to determine transfection efficiencies
- Wrote reports and SOPs for cell culture procedures to train new lab volunteers

### Research Assistant, Western University, Canada

May 2018 - Aug 2018

- Fabricated thin films for solar cells using nanocrystals and electrodepositions
- Employed a new wet-chemical process to increase solar cell efficiency by 8%
- Characterized samples using an SEM and a source measure unit; learned semiconductor theory

## PROJECTS

### SmartHire, TechTogether Boston 2019 Hackathon, Boston University

Mar 2019

- Built an unbiased AI model to automate the hiring process in Python using IBM's Natural Language Understanding API and open source model Word2Vec
- Built frontend web-app in HTML, CSS, JavaScript, and Bootstrap; created mock-ups in UXPin
- **Won the IBM Research Award and the Liberty Mutual Best Gender Equality Hack Award**

### MeeLia, WiCHacks 2019 Hackathon, Rochester Institute of Technology

Mar 2019

- Trained a mental health voice assistant model using the Google Natural Language API and Python
- Built frontend website using HTML, CSS, and Bootstrap
- **Won the MLH Best Hardware Challenge**

### EnviroKIDS, ECoDing Hacks 2019, York University

Feb 2019

- Built a web-app using jQuery, HTML, CSS, Bootstrap, and UXPin to improve kids' environmental education
- **Won the ECoDing Hacks Best Social Impact Hack Challenge**

## ACTIVITIES

### Outreach Lead, BioTEC 2020 Conference, University of Waterloo

Jan 2018 - Present

- BioTEC is Canada's top student-run forum for biotechnology & bioengineering
- Successfully secured 400+ applicants and 200 delegates for last year's conference
- Engage with groups from other universities to form meaningful partnerships as an outreach lead

## EDUCATION

### University of Waterloo, Honours Nanotechnology Engineering

2017 - 2023

- Candidate for Bachelor of Applied Science Degree in Nanotechnology Engineering
- Selected Courses: Intro to Python, Numerical Methods in MATLAB, Probability & Statistics, Materials Science Characterization Lab
- President's Scholarship for entrance average above 90%